

**ENVIRONMENTAL PROTECTION  
COMMISSION[567]**

**Notice of Intended Action**

Pursuant to its rulemaking authority in Iowa Code section 455B.474, the Environmental Protection Commission (EPC) proposes to amend Chapter 135, “Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks,” Iowa Administrative Code.

The EPC adopted rules published in the July 2, 2008 Administrative Bulletin as ARC 6892B. The rules were scheduled to take effect on August 6, 2008. The rules contained some provisions which were relatively uncontroversial and some rules that were controversial. The more controversial rules in part established a policy and procedure for the assessment of the potential risk of impact from underground storage tank (UST) releases to public water supply wells (pwsws) which are located outside the actual or modeled contaminated groundwater plume. The rules established an assessment protocol in which owners and operators of underground storage tanks (UST) and the Department shared responsibility to initially conduct sufficient assessment of soil and groundwater contamination to determine the likelihood that an UST release could impact a psws. If sufficient evidence of potential or actual impact was established, the rules placed responsibility on the owner and operator to conduct further risk assessment and/or corrective action as necessary to protect human health and safety.

In response to public comment, some of which supported and some of which objected to the rules, the Administrative Rules Review Committee (ARRC) at a public meeting on July 8, 2008 imposed a 70-day delay on the entire rule package (ARC 6892B) pursuant to authority in Iowa Code section 17A.4(6). The ARRC requested that the primary stakeholders and the Iowa Department of Natural Resources (Department) staff attempt to reach a resolution of their differences. The 70-day delay would by law expire October 16, 2008.

The Department and other stakeholders reached an agreement which generally provides for the Department and the Iowa Comprehensive Petroleum Underground Storage Tank Fund Board (UST Fund) to enter into an inter-governmental agreement (28E Agreement) to jointly develop and implement a study of the risk to pwsws from UST petroleum releases. The study would be funded by public funds under the control of the UST Fund. The stakeholder agreement also required that the EPC agree to initiate a rulemaking to rescind those parts of the adopted rules in ARC 6892B which were controversial and related to the pwsw risk assessment protocol and to propose an amendment to the chapter clarifying the responsibility of owners and operators to take further assessment and corrective action in the event the study confirmed unacceptable risk to pwsws. The stakeholders agreed not to object to the non-controversial parts of the ARC 6892B rule package.

On October 14, 2008, the ARRC voted to impose a partial "session delay". See Iowa Administrative Bulletin \*\*\*\*\*. In recognition of the stakeholder agreement, the ARRC imposed a session delay only on those more controversial portions of the adopted rules as published in ARC 6982B which dealt with the pwsw assessment protocol. The effect of the partial delay was that the prior 70-day delay on the remainder of the rule package would expire as of October 16, 2008. The rules not subject to the "session delay" have therefore taken effect as of October 17, 2008.

At its public meeting on November 10, 2008, the EPC reviewed and approved the proposed stakeholder agreement, including the 28E Agreement and this Notice of Intended Action (NOIA).

These proposed amendments rescind those parts of the rules adopted in ARC 6892B which establish the policy and procedure for conducting risk assessment to pwsws outside the actual or modeled plume. The terms of the 28E Agreement are generally accepted as being sufficient to protect pwsws during the study. The terms of the 28E Agreement explicitly acknowledge that in the event sufficient proof of unreasonable risk to a pwsw is established during the study, the UST Fund would provide funding to take

necessary corrective action under two basic circumstances. One, where the UST site claimant is otherwise "fund eligible", assessment and corrective action to address risk to the pwsd would be treated as a fund-eligible cost. Second, where the Department has issued a "no further action certificate" (NFA certificate) prior to a determination of risk to the pwsd, the UST Fund agrees to provide funding for corrective action pursuant to the authority granted in Iowa Code section 455G.9(1)"k".\*

Under the 28E Agreement, it is possible that the study could result in establishing sufficient proof of risk to a pwsd which is located outside the actual or modeled groundwater plume. In recognition of this fact, the EPC proposes with the support of the participating stakeholders to add language to clarify the authority under chapter 567 IAC 135 to require the responsible UST owner and operator to undertake further assessment and corrective consistent with the risk based corrective action rules when the Tier 2 groundwater model is shown to be "under predictive".

Given the long period of public participation and the extensive stakeholder participation in the issues surrounding these amendments, the Department is conducting one public hearing. The hearing will be held in Des Moines, Iowa at the Wallace State Office Building, \*\*\*\*\* on \*\*\*\*\*.

Written comments may be submitted by mailing or emailing them no later than [insert a date at least 20 days from publication date].

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The 28E agreement between the Department and the UST Fund involves the expenditure of funds but not as a direct result of this rulemaking. The agencies have agreed to undertake this study pursuant to their joint statutory authorities. Therefore, the

a fiscal impact statement in accordance with Iowa Code section 17A.4(3) and 25B.6 is deemed to be unnecessary.

These amendments are intended to implement Iowa Code section 455B.474.

\*This provision generally provides that the Department and UST Fund enter into an agreement to provide a funding mechanism to address unreasonable risk which is discovered after issuance of an NFA certificate and which is not the result of a release which occurs after the release for which the NFA certificate has been issued.

The following amendments are proposed.

**ITEM 1: Amend rule 135.2 by rescinding the following definitions:**

~~“Sensitive area” means a screening tool used to determine if a public water supply well warrants a more in depth assessment. It is not intended to be a mechanism to assign a risk classification to the public water supply well receptor. “Sensitive area” describes the area within the Iowa Geological Survey’s designated five year capture zone for any public water supply well or, if the Iowa Geological Survey has not designated a five year capture zone for a public water supply well, the area within a 2,500 foot radius of the public water supply well and where the Iowa Geological Survey has given the public water supply well aquifer a source water protection aquifer designation of “susceptible” or “highly susceptible.”~~

**ITEM 2. Amend subrule 135.8(1) by adopting new paragraph "e" as follows:**

e. Pathway re-evaluation. Prior to issuance of a no further action certificate in accordance with 135.12(10) and Iowa Code section 455B.474(1)(h)(3), if it is determined that the conditions for an individual pathway that has been classified as "no action required" no longer exist, or it is determined that the site presents an unreasonable risk to a public water supply well and the model used to obtain the pathway clearance

under predicts the actual contaminant plume, the individual pathway shall be further assessed consistent with the risk based corrective action provisions in 135.8-12.

**ITEM 3: Amend subrule 135.9(4) by rescinding paragraph "f" as follows:**

~~f. Receptor evaluation for public water supply wells. If a public water supply well is located within 2,500 feet of the underground storage tank source area, a Tier 2 assessment must be completed for this pathway in accordance with 135.10(455B), unless the department agrees with the recommendation of the owner or operator's groundwater professional that it is unlikely the public water supply well is at risk, even without the benefit of soil and groundwater plume definition and a Tier 2 pathway assessment. The groundwater professional may take into account the factors specified in 135.10(11)“h.”~~

**ITEM 4: Amend subrule 135.10(4)"a" and "b" as follows:**

**135.10(4) Groundwater ingestion pathway assessment.**

a. Pathway completeness. Unless cleared at Tier 1, this pathway is complete and must be evaluated under any of the following conditions: (1) the first encountered groundwater is a protected groundwater source; or (2) there is a drinking water well or a non-drinking water well within the modeled groundwater plume or the actual plume as provided in 135.10(2)“j” and 135.10(2)“k.” ~~A public water supply screening and risk assessment must be conducted in accordance with 135.10(4)“f” for this pathway.~~

b. Receptor evaluation. All drinking and non-drinking water wells located within 100 feet of the largest actual plume (defined to the appropriate target level for the receptor type) must be tested, at a minimum, for chemicals of concern as part of the receptor evaluation. Actual plumes refer to groundwater plumes for all chemicals of concern. Untreated or raw water must be collected for analysis unless it is determined to be infeasible or impracticable. ~~The certified groundwater professional or the department may request additional sampling of drinking water wells and non-drinking water wells as part of its evaluation.~~

All existing drinking water wells and non-drinking water wells within the modeled plume or the actual plume as provided in paragraph “a” must be evaluated as actual

receptors. Potential receptors only exist if the groundwater is a protected groundwater source. Potential receptor points of exposure are those points within the modeled plume or actual plume that exceed the potential point of exposure target level. The point(s) of compliance for actual receptor(s) is the receptor. The point(s) of compliance for potential receptor(s) is the potential receptor point of exposure as provided in 135.10(2)“j” and 135.10(2)“k.”

**ITEM 5: Amend subrule 135.10(4) by rescinding paragraph "f" and renumbering the remainder of the subrule.**

~~f. Public water supply well assessment. The groundwater professional shall identify all public water supply wells located outside the applicable modeled plume but within 2,500 feet of the leaking underground storage tank site. The certified groundwater professional shall conduct a preliminary assessment of the potential risk of impact from the underground storage tank release to the public water supply well based on available information and taking into account the assessment factors in 135.10(11)“h” and other relevant considerations. The certified groundwater professional shall submit a public water supply well risk assessment report either prior to or along with the Tier 2 site cleanup report. The risk assessment shall, at a minimum, provide an analysis of the potential risk of impact from the underground storage tank site release to the public water supply well and a recommendation as to whether it is unlikely the underground storage tank release poses an unreasonable risk of impact to the well. If the groundwater professional determines that a professional judgment cannot reasonably be offered without collection of further data, the report shall make a recommendation as to what further data might be developed to assess the risk to the well.~~

f.g. Plume definition. The groundwater plume shall be defined to the applicable Tier 1 level for actual receptors except, where there are no actual receptors and the groundwater is a protected groundwater source, the plume shall be defined to the Tier 1 level for potential receptors.

g.h. Pathway classification. This pathway shall be classified as high risk, low risk or no action required in accordance with 135.12(455B).

~~h i.~~ Corrective action response. Corrective action must be conducted in accordance with 135.12(455B). Abandonment and plugging of wells in accordance with 567—Chapters 39 and 49 is an acceptable corrective action response.

~~i j.~~ Use of institutional controls. The use of institutional controls may be used to obtain no action required pathway classification. If the pathway is complete and the concentrations exceed the applicable Tier 1 level(s) for actual receptors, the drinking or non-drinking water well must be properly plugged in accordance with 567—Chapters 39 and 49 and the institutional control must prohibit the use of a protected groundwater source (if one exists) within the actual or modeled plume as provided in 135.10(2)“j” and 135.10(2)“k.” If the Tier 1 level is exceeded for potential receptors, the institutional control must prohibit the use of a protected groundwater source within the actual or modeled plume, whichever is greater. If concentrations exceed the Tier 1 level for drinking water wells and the groundwater is a protected groundwater source, the owner or operator must provide notification of the site conditions on a department form to the department water supply section, or if a county has delegated authority, then the designated county authority responsible for issuing private water supply construction permits or regulating non-public water well construction as provided in 567—Chapters 38 and 49.

~~j k.~~ Notification of well owners. Upon receipt of a Tier 2 site cleanup report and as soon as practicable, the department shall notify the owner of any public water supply well identified within the Tier 2 site cleanup report that a leaking underground storage tank site is within 2,500 feet and an assessment has been performed.

**ITEM 6. Amend subrule 135.10(11) by rescinding paragraph “h”:**

~~h. Review of the public water supply receptor risk assessment. The department shall review the public water supply well risk assessment report submitted pursuant to 135.10(4) independently or as part of its review of the Tier 2 site cleanup report. Factors which the department may consider when reviewing the risk assessment report include, but are not limited to:~~

~~(1) The location of the underground storage tank site within a sensitive area as defined in 135.2(455B) for any identified public water supply well and if so, the potential risk of~~

~~impact to the well taking into account the well's capture zone and the aquifer susceptibility designation.~~

~~(2) Reports of petroleum constituents in the raw or finished water samples from the public water supply well.~~

~~(3) Whether corrective action may be required or has been completed for other receptors or pathways which could prevent impact to the public water supply well.~~

~~(4) Test results showing the presence or absence of detectable levels of petroleum constituents in a public water supply well, and to what extent the underground storage tank site release or other facilities in the area may be a source or contributing source.~~

~~(5) The presence of elevated concentrations of chemicals of concern in the soil or groundwater relative to the distance to the public water supply well and groundwater fate and transport data from other contaminated sources in the vicinity.~~

~~(6) Available information on the pumping capacity of the public water supply well and related zone of capture.~~

~~(7) Detections of chemicals in water samples tending to establish that the integrity of the well has been compromised or that there is a connection between the contaminated aquifer and the well's source water aquifer.~~

~~(8) Available information, including hydrogeological data from other sources in the vicinity, as to the nature and extent of any confining layer between the public water supply well aquifer and the contaminated aquifer.~~

~~(9) Information supplied from the public water supply well operator including but not limited to well construction, age, integrity, and pumping capacity.~~

~~(10) Water quality data and detections of chemicals tending to establish that the integrity of the well has been compromised or that there is a connection between the contaminated aquifer and the public water supply well.~~

~~(11) The distance between the leaking underground storage tank site and the public water supply well.~~

~~(12) The age of the release.~~

~~(13) Alternative modeling including, but not limited to, mass flux modeling.~~

~~If the department concurs with the certified groundwater professional's risk analysis and recommendation that it is unlikely the underground storage tank site release poses an~~



unreasonable risk of impact to the public water supply well, the department may classify the well as no action required.

~~If after taking into account the groundwater professional's risk analysis, professional recommendations and other relevant data, the department does not accept the certified groundwater professional's recommendations, the department must demonstrate that there is a hydrogeological connection between the underground storage tank contaminated aquifer and the public water supply well and that the underground storage tank release more likely than not poses an unreasonable risk of impact to the public water supply well. If the department establishes this level of proof, it may disapprove the assessment report and require the owner and operator through their certified groundwater professional to submit a Tier 3 work plan. The work plan shall propose what further assessment methods and data would be sufficient to confirm the nature and extent of any risk of impact to the public water supply well from the underground storage tank site release. As an alternative to submitting a Tier 3 work plan for this receptor, owners or operators may participate in a corrective action meeting process to develop a Tier 3 work plan or other corrective action plan, which would be incorporated into a memorandum of agreement or other written agreement approved by the department.~~